PCT10

Error on p. 4

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/088,920

DATE: 10/23/2002
TIME: 16:11:55

Input Set : A:\25835104.app
Output Set: N:\CRF4\10232002\J088920.raw

<110> APPLICANT: KIZAKI, NORIYUKI
YASOHARA, YOSHIHIKO
HASEGAWA, JUNZO
<120> TITLE OF INVENTION: NOVEL CARBONYL REDUCTASE, GENE THEREFOR, AND METHOD OF USING THE SAME
<130> FILE REFERENCE: 025835/0104
<140> CURRENT APPLICATION NUMBER: 10/088,920
<141> CURRENT FILING DATE: 2002-06-03
<150> PRIOR APPLICATION NUMBER: PCT/JP01/06619
<151> PRIOR FILING DATE: 2001-08-01
<150> PRIOR APPLICATION NUMBER: JP 2000-232756
<151> PRIOR FILING DATE: 2000-08-01
<160> NUMBER OF SEQ ID NOS: 11
<210> SEQ ID NO: 1
<211> LENGTH: 277
<212> TYPE: PRT
<213> ORGANISM: Micrococcus luteus
<400> SEQUENCE: 1

```
Met Arg Arg Met Thr Leu Pro Ser Gly Glu Ser Ile Pro Val Leu Gly
 1               5                  10                  15
Gln Gly Thr Trp Gly Trp Gly Glu Asp Pro Gly Arg Arg Gly Asp Glu
            20                  25                  30
Val Ala Ala Leu His Ala Gly Leu Glu Leu Gly Met Thr Leu Val Asp
        35                  40                  45
Thr Ala Glu Met Tyr Ala Asp Gly Gly Ala Glu Glu Val Ala Gly Glu
    50                  55                  60
Ala Leu Ala Gly Arg Arg Asp Glu Ala Phe Val Val Ser Lys Val Met
65                  70                  75                  80
Pro Ser His Ala Ser Arg Ser Gly Thr Ile Ala Ala Cys Glu Arg Ser
                85                  90                  95
Leu Lys Arg Leu Gly Thr Asp Arg Ile Asp Leu Tyr Leu Leu His Trp
            100                 105                 110
Gln Gly Arg Tyr Pro Leu Gln Asp Thr Val Ala Ala Phe His Gln Leu
        115                 120                 125
Val Gln Asp Gly Lys Ile Arg Tyr Ile Gly Val Ser Asn Phe Asp His
    130                 135                 140
Arg Arg Leu Ala Glu Leu Gln Asp Val Pro Gly Thr Ser Gly Leu Thr
145                 150                 155                 160
Thr Asp Gln Val Leu Tyr Asn Leu Ser Arg Arg Gly Pro Glu Tyr Asp
                165                 170                 175
Leu Leu Pro Trp Cys Ala Asp His Gln Leu Pro Val Met Ala Tyr Ser
            180                 185                 190
Pro Ile Glu Gln Gly Arg Ile Leu Asp Asp Thr Thr Leu Asn Asp Val
        195                 200                 205
```

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```
 67 Ala Ala Arg His Ser Val Ser Pro Ala Ala Ala Ala Leu Ala Trp Val
 68     210                 215                 220
 70 Leu Arg Arg Asp Ser Leu Cys Thr Ile Pro Lys Ala Ser Ser Pro Gln
 71 225                 230                 235                 240
 73 His Val Arg Asp Asn Ala Thr Ala Leu Asp Val Glu Leu Thr Arg Glu
 74                 245                 250                 255
 76 Asp Leu Asp Ala Leu Asp Arg Ala Phe Pro Pro Pro Ser Gly Pro Arg
 77             260                 265                 270
 79 Pro Leu Glu Met Leu
 80         275
 83 <210> SEQ ID NO: 2
 84 <211> LENGTH: 1410
 85 <212> TYPE: DNA
 86 <213> ORGANISM: Micrococcus luteus
 88 <220> FEATURE:
 89 <221> NAME/KEY: CDS
 90 <222> LOCATION: (108)..(938)
 92 <400> SEQUENCE: 2
 93 ggtacccgcc gccctcctat aagccagcac cggtcgagga cgcgccggcc cttcgaggat 60
 95 ctcagcccac gtcccgcctc aggacaacca gaaggaagtg atcgcgg atg cga cgg   116
 96                                                    Met Arg Arg
 97                                                      1
 99 atg acg ctg ccg agt ggg gag tcc atc cct gtg ctg ggc cag ggc acc   164
100 Met Thr Leu Pro Ser Gly Glu Ser Ile Pro Val Leu Gly Gln Gly Thr
101       5                  10                  15
103 tgg ggc tgg ggt gag gac ccc ggc cgc cgc ggc gac gag gtc gcc gcg   212
104 Trp Gly Trp Gly Glu Asp Pro Gly Arg Arg Gly Asp Glu Val Ala Ala
105  20                  25                  30                  35
107 ctg cac gcc ggc ctc gag ctg ggc atg acg ctg gtc gac acc gcc gag   260
108 Leu His Ala Gly Leu Glu Leu Gly Met Thr Leu Val Asp Thr Ala Glu
109                 40                  45                  50
111 atg tac gcc gac ggc ggt gcg gag gag gtg gct ggt gaa gca ttg gcg   308
112 Met Tyr Ala Asp Gly Gly Ala Glu Glu Val Ala Gly Glu Ala Leu Ala
113             55                  60                  65
115 ggt cgc cgc gac gag gcg ttc gtg gtc agc aag gtc atg ccg tcc cac   356
116 Gly Arg Arg Asp Glu Ala Phe Val Val Ser Lys Val Met Pro Ser His
117         70                  75                  80
119 gcc tcc cgt tcc ggc acg atc gcg gcc tgc gaa cgc agc ctg aaa cgc   404
120 Ala Ser Arg Ser Gly Thr Ile Ala Ala Cys Glu Arg Ser Leu Lys Arg
121     85                  90                  95
123 ctg ggc acc gat cag atc gac ctc tac ctg ctg cac tgg cag ggc agg   452
124 Leu Gly Thr Asp Arg Ile Asp Leu Tyr Leu Leu His Trp Gln Gly Arg
125 100                 105                 110                 115
127 tac ccg ctg cag gac acc gtc gcg gcc ttc gac cag ctc gtc cag gac   500
128 Tyr Pro Leu Gln Asp Thr Val Ala Ala Phe Asp Gln Leu Val Gln Asp
129                 120                 125                 130
131 ggc aaa atc cga tac tgg ggc gtc agc aac ttc gac cac cga gcc ctg   548
132 Gly Lys Ile Arg Tyr Trp Gly Val Ser Asn Phe Asp His Arg Ala Leu
133             135                 140                 145
```

RAW SEQUENCE LISTING DATE: 10/23/2002
PATENT APPLICATION: US/10/088,920 TIME: 16:11:55

Input Set : A:\25835104.app
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```
135 gcc gag ctg cag gac gtg ccg ggc acc agc ggg ctg acc acg gat cag   596
136 Ala Glu Leu Gln Asp Val Pro Gly Thr Ser Gly Leu Thr Thr Asp Gln
137         150                 155                 160
139 gtg ctg tac aac ctg tcg cgg cga gga ccg gag tac gac ctg ctg ccg   644
140 Val Leu Tyr Asn Leu Ser Arg Arg Gly Pro Glu Tyr Asp Leu Leu Pro
141     165                 170                 175
143 tgg tgc gcc gac cac cag ctg ccg gtc atg gcg tac tcg ccg atc gag   692
144 Trp Cys Ala Asp His Gln Leu Pro Val Met Ala Tyr Ser Pro Ile Glu
145 180                 185                 190                 195
147 cag ggc cgc atc ctt gac gac acg acg ctg aac gac gtc gcg gcc cgt   740
148 Gln Gly Arg Ile Leu Asp Asp Thr Thr Leu Asn Asp Val Ala Ala Arg
149                 200                 205                 210
151 cac agc gtc agc ccc gcg gcg gcg gcc ctt gcc tgg gtg ctg cgc cgc   788
152 His Ser Val Ser Pro Ala Ala Ala Ala Leu Ala Trp Val Leu Arg Arg
153             215                 220                 225
155 gac tcg ctc tgc acg atc ccc aag gcg agc agc ccg cag cac gtg cgc   836
156 Asp Ser Leu Cys Thr Ile Pro Lys Ala Ser Ser Pro Gln His Val Arg
157         230                 235                 240
159 gac aac gcc aca gca ctg gac gtg gag ctg acc cgc gaa gac ctg gat   884
160 Asp Asn Ala Thr Ala Leu Asp Val Glu Leu Thr Arg Glu Asp Leu Asp
161     245                 250                 255
163 gct ctg gac cgt gcg ttt ccg ccc ccg agc gga ccg cga cca ctg gaa   932
164 Ala Leu Asp Arg Ala Phe Pro Pro Pro Ser Gly Pro Arg Pro Leu Glu
165 260                 265                 270                 275
167 atg ctg tgaccctgcc ccagggcgca gccccggtcgg tccgggcggt ccgggcagtc    988
168 Met Leu
170 cgggcagcgc tccggtcagc gcaagtctcc gaaggacctg cctgtcacct cctcctgaac 1048
172 ctgtgcacgc catccatcga ctcctttcct cgagccctgt cgggttcgcg gtaggcgctg 1108
174 atcatccgct ggcaggtccc ccaagtggcc tcgagccggg ccctctgctt gtcggtgagc 1168
176 aacccggttc cggcgtgcag ggttcgacgg gcggagtaga gcgggtcgcc cgtgcggccg 1228
178 cggtggccat gcaggtcctg ctggacccgg cggtggcagc ggaccaacgc gtcgccggct 1288
180 aaccggactg cgagcgaccg gcgttgtgga cgcagacgac ctggacactg ggccgtgcgg 1348
182 tcaggaggat ctccaaagtc ggcggcgggg gttcaggcga tgtcgaggaa ggaacggagc 1408
184 tc                                                               1410
187 <210> SEQ ID NO: 3
188 <211> LENGTH: 20
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
195 <220> FEATURE:
196 <221> NAME/KEY: modified_base
197 <222> LOCATION: (6)
198 <223> OTHER INFORMATION: a, t, c, g, other or unknown
200 <220> FEATURE:
201 <221> NAME/KEY: modified_base
202 <222> LOCATION: (9)
203 <223> OTHER INFORMATION: a, t, c, g, other or unknown
205 <400> SEQUENCE: 3
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RAW SEQUENCE LISTING DATE: 10/23/2002
PATENT APPLICATION: US/10/088,920 TIME: 16:11:55

Input Set : A:\25835104.app
Output Set: N:\CRF4\10232002\J088920.raw

W-->.206 gayacngcng aratgtaygc 20
209 <210> SEQ ID NO: 4
210 <211> LENGTH: 20
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
217 <220> FEATURE:
218 <221> NAME/KEY: modified_base
219 <222> LOCATION: (6)
220 <223> OTHER INFORMATION: a, t, c, g, other or unknown
222 <220> FEATURE:
223 <221> NAME/KEY: modified_base
224 <222> LOCATION: (6)
225 <223> OTHER INFORMATION: a, t, c, g, other or unknown
227 <400> SEQUENCE: 4
W--> 228 tcytcnacna gytgrtgraa 20
231 <210> SEQ ID NO: 5
232 <211> LENGTH: 26
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
239 <400> SEQUENCE: 5
240 ggcatatgc gacggatgac gctgcc 26
243 <210> SEQ ID NO: 6
244 <211> LENGTH: 32
245 <212> TYPE: DNA
246 <213> ORGANISM: Artificial Sequence
248 <220> FEATURE:
249 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
251 <400> SEQUENCE: 6
252 ggcgaattct tacagcattt ccagtggtcg cg 32
255 <210> SEQ ID NO: 7
256 <211> LENGTH: 46
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
263 <400> SEQUENCE: 7
264 ggcgaattcta aggaggattta tatatgcgac ggatgacgct gccgag 46
[illegible] SEQ ID NO: 8
268 <211> LENGTH: 29
[illegible] TYPE: DNA
270 <213> ORGANISM: Artificial Sequence
[illegible] FEATURE:
273 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
275 <400> SEQUENCE: 8
276 caggagctct tacagcattt ccagtggtc 29

n found at position 9

RAW SEQUENCE LISTING DATE: 10/23/2002
PATENT APPLICATION: US/10/088,920 TIME: 16:11:55

Input Set : A:\25835104.app
Output Set: N:\CRF4\10232002\J088920.raw

279 <210> SEQ ID NO: 9
280 <211> LENGTH: 144
281 <212> TYPE: DNA
282 <213> ORGANISM: Artificial Sequence
284 <220> FEATURE:
285 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
286 double-stranded DNA
288 <400> SEQUENCE: 9
289 gaattctaag gagatttaca tatgcgtcgt atgactttac catctggtga atctattcca 60
290 gttttaggtc aaggtacttg gggttggggt gaagatccag gtcgtcgtgg tgatgaagtt 120
291 gctgctttac atgctggtct cgag 144
294 <210> SEQ ID NO: 10
295 <211> LENGTH: 33
296 <212> TYPE: DNA
297 <213> ORGANISM: Artificial Sequence
299 <220> FEATURE:
300 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
302 <400> SEQUENCE: 10
303 cagcagctct aaggaggtta acaatgtata aag 33
306 <210> SEQ ID NO: 11
307 <211> LENGTH: 28
308 <212> TYPE: DNA
309 <213> ORGANISM: Artificial Sequence
311 <220> FEATURE:
312 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
314 <400> SEQUENCE: 11
315 cacggatcct tatccgcgtc ctgcttgg 28

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/23/2002
PATENT APPLICATION: US/10/088,920 TIME: 16:11:56

Input Set : A:\25835104.app
Output Set: N:\CRF4\10232002\J088920.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 6,9
Seq#:4; N Pos. 6,9

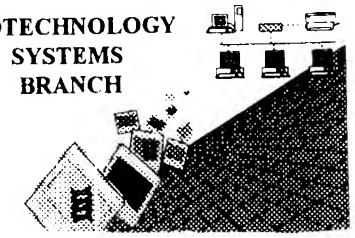
VERIFICATION SUMMARY DATE: 10/23/2002
PATENT APPLICATION: **US/10/088,920** TIME: 16:11:56

Input Set : **A:\25835104.app**
Output Set: **N:\CRF4\10232002\J088920.raw**

L:206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:228 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0

4 H

BIOTECHNOLOGY SYSTEMS BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/088,920
Source: PCT/IC
Date Processed by STIC: 10/23/02

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PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

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Revised 01.29.2002